

## GERIATRICS AND MEDICAL EDUCATION—INITIATIVES OF THE ASSOCIATION OF AMERICAN MEDICAL COLLEGES\*

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**W**E are all well aware of the demographic challenge to the nation's medical schools presented by the large increase in the elderly population of the United States and by projections for continued growth of this segment of our society.

The Association of American Medical Colleges, whose constituency includes not only the nation's 127 medical schools but more than 400 major teaching hospitals in the United States, has been meeting this challenge by providing expert care to large numbers of geriatric patients. It is estimated that 33 to 60% of the patients in acute care hospitals are elderly, and any examination of patients in our clinics or hospitals will show that academic medical centers are already providing high quality health care to the elderly.

However, providing medical care to today's elderly meets only half of the challenge presented by the geriatric imperative. The rest of the challenge, the geriatric medical education challenge, falls squarely on both medical schools and teaching hospitals. This is the challenge to see that future physicians are educated to provide appropriate care for elderly patients. It is not enough that students treat some patients who happen to be elderly in the course of their clinical training. The patients must be presented not merely as "gallbladders" or "myocardial infarctions," but as geriatric patients who may require different treatments and management plans than others with the same disease. Such differences may be due to the presence of multiple diseases, to decreased functional reserve, or to the patient's need for a wide variety of support services, but it is essential that student physicians learn the distinctions between treating geriatric and other patients.

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A recent study showed that although the elderly are only 11% of the general population, a much larger percentage of the physician's patient population may be elderly. For family physicians, the percentage of the practice population over 65 was 21%, for neurologists 22%, for general surgeons 25%, for ophthalmologists 28%, and so on. In my own specialty of internal medicine, the elderly comprised 35% of the patient population. Further, five of the 20 medical problems and diagnoses that comprise the chief clinical content of an internal medicine practice—chronic ischemic heart disease, symptomatic heart disease, emphysema, osteoarthritis and allied conditions, and acute ill-defined cerebrovascular disease—had a mean patient age of over 65.

As the over 65 population, and particularly the over 75 or frail elderly group, increases, we can expect that their utilization of health care resources will also increase. Clearly then, academic medicine indeed has an obligation to prepare tomorrow's physicians to take care of the population that will be their patients.

The Association of American Medical Colleges has been concerned with this geriatric challenge to medical education for a number of years, as documented in its 1978 testimony before the House Select Committee on Aging. It reported that while in 1977 only 42% of the nation's medical schools had elective courses specifically related to geriatrics, the number was steadily increasing. This had grown to almost 66% in 1982-83 and to nearly 75% in 1983-84. Nevertheless, the fact remains that only a small number of students (fewer than 4%) actually take an elective course or clerkship in geriatrics.

The Association had also been deeply involved in the Long-Term Care Gerontology Centers program, an initiative supported by the Administration on Aging. On the national level, the Association provided support services and technical assistance to 16 institutions, and 13 more institutions that previously received planning awards from the American Osteopathic Association received information from the program. This Association of American Medical Colleges activity undertook to facilitate the establishment of approximately 10 operational centers across the nation to serve as a national resource to the aging network in long-term care policy development, services, research, and education.

On the local level, these projects, all of which are affiliated with our schools, involve medical students and faculty in a broad spectrum of gerontologic and geriatric activities, including the development of innovative models of service and practice that can be conducted and evaluated in clin-

ical settings. Moreover, because these centers operate within a multidisciplinary framework, partnerships are spawned among academicians, service providers, community planners, and the elderly themselves. This approach enables both current and aspiring geriatric practitioners to become acquainted with the new insights into the continuum of care and community resources available to and needed by the elderly.

Without question, the Long-Term Care Centers offer an excellent learning experience. However, a wider-reaching program is clearly essential to improve the health care available to our senior citizens.

Responding to this perceived challenge, the Association developed a project approximately three years ago which I would like to describe to you. This project, designed to assist medical schools in meeting the geriatric education imperative, was called the Regional Institutes on Geriatrics and Medical Education and began in the spring of 1982 with a series of four regional conferences to consider and discuss appropriate geriatric content and strategies for its presentation in undergraduate medical education. Attending these sessions were approximately 400 deans, department chairmen of internal medicine, family medicine, basic sciences and others, representing 90% of the country's medical schools. Geriatricians were also clearly involved, but major effort was made to involve the administrators and chairmen of key departments as well. From discussion at these conferences, the steering committee developed guidelines for medical schools to review their own curricula to be sure that adequate attention is given to gerontology and geriatric medicine.

I do not want to suggest that before the RIGME project began no one in academic medicine had been concerned about educating future physicians to provide adequate and appropriate care for their geriatric patients. Several groups and organizations and many more individual faculty members have had a commitment in this area and have worked hard to develop appropriate educational efforts. Nevertheless, there seems to be general agreement that more needs to be done, and hence I accepted the chairmanship of the Association of American Medical College's RIGME project.

Each year the Association surveys graduating medical school seniors, and, of those who graduated in 1982, 39% indicated that their training in geriatric care was inadequate. Despite this recognized deficiency in their preparation for future practice, only 2.5% of the seniors took an elective course in geriatrics. These strongly indicated that improvement in geriatric education was needed. And I believe that the low percentage of students choosing geriatric electives argues forcibly that the surest way to achieve this im-

provement is through integration of gerontology and geriatrics into the mainstream of the basic undergraduate medical curriculum.

This belief was shared by the Association and by the members of the RIGME project Steering Committee. For this reason, the project's final report does not suggest a specific curriculum or recommend required courses in geriatrics. We believe it is far more important to emphasize the integration of geriatric content as appropriate into all segments of the curriculum. The Association has traditionally not involved itself in how to include categorical programs in medical school curricula. Nevertheless, some subjects requiring curricular emphasis are so important and so pervasive that it is appropriate for the Association to facilitate discussion about how they are taught in medical schools. This was the case with the National Primary Care Institute that the Association sponsored in 1975, and it is the case with geriatrics in 1982.

As the steering committee considered how best to guide schools in integrating geriatrics into their curricula, it was decided that while the project should delineate certain institutional responsibilities, primary emphasis should be given to describing the attitudes, knowledge, and skills essential for high quality geriatric care. These considerations assume first-rate general professional education for the physician. Thus, the recommendations encompass not only such traditional elements of medical education as knowledge of the basic biomedical and clinical sciences, but also reflect the Committee's belief that students must learn to consider the psychological, social, economic, cultural, and family elements which have an important impact on illnesses of the elderly, the quality of their lives, and the degree of their dependency on others.

I would like to summarize the four major recommendations of the RIGME Report:

The RIGME report suggests that there is an institutional responsibility to provide an environment which fosters and encourages appropriate teaching in gerontology and geriatric medicine. One component of this environment is a focus for change in the educational and training programs to increase attention to the aging process and to elderly patients. This is best achieved through a group of faculty members interested in gerontology and geriatric medicine. About one sixth of our schools have established a division within either the internal medicine or family practice departments. The Committee does not recommend this model for all medical schools, but does believe that there must be faculty members identified for their commitment to this field.

Research in aging should continue not only to improve clinical care but to stimulate medical student interest in gerontology and geriatrics. Many students make an early commitment to a research or academic career, and it is essential that the exciting scientific aspects of geriatrics be presented early in the medical school experience so that students are attracted to this area.

Students should see elderly patients in a variety of clinical settings to learn the special requirements for the care, diagnosis, and treatment of the elderly. Ideally, clinical training should include home care and ambulatory experiences as well as acute tertiary care. Students must learn that 95% of the elderly are not institutionalized and lead active, independent lives. (Only 5% are institutionalized at any one time, but 20% are involved with formal support systems at some time and 43% need assistance in some aspect of their daily lives.)

The final institutional responsibility is to assure an ambience of respect for the dignity and needs of elderly patients. This must be demonstrated daily by the faculty and, most particularly, by the house staff from whom the students receive so much of their clinical instruction and supervision.

Many schools are already committed to one or more of these goals, but I do not believe that the institutional commitment is so widespread as not to profit from some repetition. We should consider how well our own institutions are meeting these goals.

Training a physician requires more than imparting knowledge and teaching skills. It requires that certain professional attitudes be inculcated. While it is, perhaps, most appropriate for individual medical schools and training programs to formulate the attitudes they wish their students to develop, the Committee believed there are certain overarching goals for the education of a physician that can be stated at this time: Students should like, or at least respect, their elderly patients. Humane, compassionate, and supportive care of the elderly is an important responsibility of physicians.

The student should learn that sickness and disability are not inevitable consequences of aging, and that most elderly people can lead active, independent lives. Nevertheless, students must also learn that old age and death are two of the many aspects of life, and they must learn to cope with their own feelings about mortality.

It is not sufficient for a student to learn to diagnose and treat the diseases of the elderly. The student must learn to treat the patient, not just the disease. The physician's care cannot be limited only to the application of scientific knowledge. A poignant example of the latter phenomenon was described

by Dr. Hans Stettin in the *New England Journal of Medicine*.<sup>\*</sup> He stated that it was not sufficient for him to learn from his physicians that he was losing his vision and there was nothing scientific medicine could do to alleviate the condition. Having learned this, it was then essential that he learn how to cope with his failing eyesight to prevent dependency as much as possible. Too often today, physicians fail in their responsibility either to postpone the onset of dependency or to teach their patients about nonmedical aids and support systems available to them. Nevertheless, this is important to the patient's well-being and self-respect. Learning to postpone dependency requires that the physician be familiar with the array of social support systems and community resources available to the elderly. The physician should also understand and respect the contributions that other health professionals and care givers make to the patient's well-being. Perhaps the greatest failing in today's medical education system is that we do not do enough to be sure that our students understand how to utilize most effectively and efficiently nonmedical resources to care for their patients.

Finally, students must have an awareness and understanding of the ethical issues that arise in the treatment of the elderly.

The section on basic knowledge in the final document of the Steering Committee sets forth some of the scientific data related to aging. No effort has been made to be encyclopedic, because scientific knowledge constantly advances, and the Committee intends and expects that faculty members will continually update the geriatric content of the basic biomedical sciences to include new theories, discoveries, and knowledge.

As the Committee developed its document, it was pointed out that the basic science knowledge relating to geriatric medicine might be summarized by saying, "Everything doesn't work as well." This may be true, but this is negative and not a sufficient basis on which to build clinical education. It is important for students to realize that much of the scientific basis for data related to aging still needs elucidation, and students must understand the interrelationships of changes in one organ system with changes in others. Firm scientific knowledge is essential for the provision of good clinical care to the elderly as for other patients. The teaching of physiological changes from development to maturity is not sufficient; they should be carried through the aging process as well. Then students can extend their knowledge of the physiological changes in the various organ systems to understand how such

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<sup>\*</sup>Stetten, De Witt: Coping with blindness. *N. Engl. J. Med.* 305: 58-60, 1981.

changes influence incidence, frequency, clinical and laboratory manifestations, course, and treatment of diseases involving those systems in elderly people.

My discussion of integrating geriatric content into the clinical curriculum presupposes that a medical school has in place a good and thorough system for teaching clinical care. If the student is already receiving adequate instruction in such basics as taking a good history and giving a good physical examination, then the faculty members can include instances where the care and treatment of elderly patients may differ from that of patients in midlife.

It is especially important for the student interviewing an elderly patient to assess functional capacity and the patient's ability to perform the routine activities of daily living. Again, it is essential for students to realize that an important aspect of caring for geriatric patients is the postponement of dependency as long as possible. To this end, students should be alert for functional impairments that can be reversed or ameliorated by treatment. Attention should be given to a psychogeriatric history and to a particularly careful examination of hearing and vision.

In the physical examination, students should realize that it may be too fatiguing for the patient to undergo a complete physical and diagnostic work-up at one time. Likewise, modifications in the examination may be necessary to accommodate a particular weakness or problem of the elderly patient or to maintain the patient's dignity.

Laboratory and other special studies may show deviations from previously learned normal values when such values are calculated for an individual in midlife. In the elderly, a much wider range of responses might be considered normal. Students must also understand that certain diseases may present differently in the elderly, making ordinary laboratory findings less than helpful.

A number of diseases more common in the elderly present differently. Students should learn to recognize and to care for such diseases, and should be particularly aware of the hazards of treating any one disease process in the presence of reduced hemostatic reserve and multiple pathologic processes.

In developing a management plan, preventive and therapeutic interventions used for younger individuals may need to be modified because of an elderly patient's decreased functional capacity and the presence of multiple and chronic diseases. Clinical pharmacology is an especially important aspect of care of the aged, and the treatment plan should pay special attention to altered handling of drugs and drug interactions. Also included in the management and treatment plan must be patient and family education, care

by other health professionals, economic, social and other support systems, and special management techniques, particularly in rehabilitation. Students must also be cautioned not to forget prevention in treating elderly patients.

Since the conclusion of the Association's Regional Institutes on Geriatrics and Medical Education project, the Association has distributed almost 6,000 copies of the proceedings and committee report. In addition, the Committee's report appeared in the *Journal of Medical Education*, which has a circulation of approximately 6,500. In June 1984 we completed our visiting lectureships in the geriatrics and gerontology project, which funded visits to more than 80 medical schools and teaching hospitals.

In summary, the thrust of the Association's current efforts to meet the geriatric medical education imperative is to encourage and facilitate the incorporation of geriatric content into the mainstream of undergraduate medical education. While elective courses in geriatrics are commendable, they are clearly not reaching the vast majority of the medical students (about 4% last year). It appears crucial that each medical school examine its curriculum and assure that appropriate geriatric information and experience are part of the education of every medical student.